SEQUENCE LISTING

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      Ken Phillips
     Greg Budziszewski
      Fred Meins
      Zhenya Glazov
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375

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185

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Thr Pro Gly Gly Ser Asp Pro Pro Pro Asp Ile Leu Gln Leu Cys Val 65 70 75 80

Gly Asn Arg Cys Leu Ile Ile Gln Leu Ser His Cys Lys Arg Ile Pro 85 90 95

Glu Val Leu Arg Ser Phe Leu Glu Asp Glu Thr Ile Thr Phe Val Gly
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Val Trp Asn Ser Gln Asp Gln Gly Lys Leu Glu Arg Phe Arg His Gln
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Leu Glu Ile Trp Arg Leu Leu Asp Ile Arg His Tyr Leu Pro Thr Arg 130 135 140

Leu Leu Asn Ser Ser Phe Glu Lys Ile Val Glu Glu Cys Leu Gly Tyr 145 150 155 160

Lys Gly Val Arg Lys Asp Lys Glu Ile Cys Met Ser Asn Trp Gly Ala 165 170 175

Arg Ser Leu Ser His Asp Gln Ile Val Gln Ala Ser Asp Asp Val Tyr 180 185 190

Val Cys Cys Lys Leu Gly Val Lys Glu Cys Ile Trp Lys Glu Arg Ser 195 200 205

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Ser Tyr Gln Leu Pro Asn Val Met Arg Asp Phe Phe Arg Gln Pro Asp

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Pro 625	Lys	Lys	Asp	Lys	Gly 630	His	Lys	Ser	Tyr	Arg 635	Lys	Leu	Lys	Thr	Ile 640
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Arg Val Gly Glu His Leu Arg His Ile Ile Thr Val Pro Ser Lys 710 715 720

Ser Tyr Glu Ala Leu Lys Met Asp Tyr Asp Asn Tyr Thr Ile Ala Ile
725 730 735

Pro Glu Leu Asn Asn Met Ser Pro Val Asp Gln Leu Ile Glu Phe Phe 740 745 750

Asp Leu Phe Asn Val Asp Ile Arg Pro Glu Asp Val Tyr Pro Arg Cys 755 760 765

Thr Glu Cys Asn Ser Arg Leu Gln Ile Lys Phe Pro Gly Pro Val Leu 770 780

His Phe Leu His Gln Tyr Cys Val Ile His Val Gln Asn Val Tyr Arg
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His Ile Asn Pro Asp Asp Tyr Asp Gly Val Lys Val Glu Met Ser Arg 820 825 830

Pro Ser Pro Thr Ser Lys Trp Ile Val Ala Thr Val Pro Thr Gly Cys 835 840 845

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Ile Glu Val Arg Ile His Lys Val Pro Asp Asp Glu Phe Lys Arg Arg 865 870 875 880

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Phe Asp Met Glu Trp Pro Pro Leu Tyr Asn Arg Gly Lys Leu Gly Lys

Val Ala Leu Ile Gln Leu Cys Val Ser Glu Ser Lys Cys Tyr Leu Phe 100 105

His Val Ser Ser Met Ser Val Phe Pro Gln Gly Leu Lys Met Leu Leu 115

Glu Asn Lys Ala Val Lys Lys Ala Gly Val Gly Ile Glu Gly Asp Gln 135

Trp Lys Leu Leu Arg Asp Phe Asp Ile Lys Leu Lys Asn Phe Val Glu 145 150

Leu Thr Asp Val Ala Asn Lys Lys Leu Lys Cys Thr Glu Thr Trp Ser

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Lys Ser Ile Arg Cys Ser Asn Trp Ser Lys Phe Pro Leu Thr Glu Asp

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Ser Thr Arg Lys Asp Ile His His Arg Phe Val Arg Asp Glu Ile Gln

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Cys Val Ile Ala Thr Ile Ala Phe Gly Met Gly Ile Asn Lys Ala Asp 820 825 830

Ile Arg Gln Val Ile His Tyr Gly Ala Pro Lys Asp Met Glu Ser Tyr 835 840 845

Tyr Gln Glu Ile Gly Arg Ala Gly Arg Asp Gly Leu Gln Ser Ser Cys 850 855 860

His Val Leu Trp Ala Pro Ala Asp Ile Asn Leu Asn Arg His Leu Leu 865 870 875 880

Thr Glu Ile Arg Asn Glu Lys Phe Arg Leu Tyr Lys Leu Lys Met Met 885 890 895

Ala Lys Met Glu Lys Tyr Leu His Ser Ser Arg Cys Arg Arg Gln Ile 900 905 910

Ile Leu Ser His Phe Glu Asp Lys Gln Val Gln Lys Ala Ser Leu Gly 915 920 925

Ile Met Gly Thr Glu Lys Cys Cys Asp Asn Cys Arg Ser Arg Leu Asp 930 935 940

His Cys Tyr Ser Met Asp Asp Ser Glu Asp Thr Ser Trp Asp Phe Gly 945 950 955 960

Pro Gln Ala Phe Lys Leu Leu Ser Ala Val Asp Ile Leu Gly Glu Lys 965 970 975

Phe Gly Ile Gly Leu Pro Ile Leu Phe Leu Arg Gly Ser Asn Ser Gln 980 985 990

Arg Leu Ala Asp Gln Tyr Arg Arg His Ser Leu Phe Gly Thr Gly Lys 995 1000 1005

Asp Gln Thr Glu Ser Trp Trp Lys Ala Phe Ser Arg Gln Leu Ile Thr 1010 1015 1020

Glu Gly Phe Leu Val Glu Val Ser Arg Tyr Asn Lys Phe Met Lys Ile 1025 1030 1035 1040

Cys Ala Leu Thr Lys Lys Gly Arg Asn Trp Leu His Lys Ala Asn Thr 1045 1050 1055

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1060 1065 1070

Lys Phe Leu Leu Pro Ser Ser Lys Thr Val Ser Ser Gly Thr Lys Glu 1075 1080 1085

His Cys Tyr Asn Gln Val Pro Val Glu Leu Ser Thr Glu Lys Lys Ser 1090 1095 1100

Asn Leu Glu Lys Leu Tyr Ser Tyr Lys Pro Cys Asp Lys Ile Ser Ser

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- Ile Leu Pro Leu Met Thr Ile Gly Met His Leu Ser Gln Ala Val Lys 1285 1290 1295
- Ala Gly Cys Pro Leu Asp Leu Glu Arg Ala Gly Leu Thr Pro Glu Val 1300 1305 1310
- Gln Lys Ile Ile Ala Asp Val Ile Arg Asn Pro Pro Val Asn Ser Asp 1315 1320 1325
- Met Ser Lys Ile Ser Leu Ile Arg Met Leu Val Pro Glu Asn Ile Asp 1330 1335 1340
- Thr Tyr Leu Ile His Met Ala Ile Glu Ile Leu Lys His Gly Pro Asp 1345 1350 1355 1360
- Ser Gly Leu Gln Pro Ser Cys Asp Val Asn Lys Arg Arg Cys Phe Pro 1365 1370 1375
- Gly Ser Glu Glu Ile Cys Ser Ser Ser Lys Arg Ser Lys Glu Glu Val 1380 1385 1390
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Pro Lys Phe Trp Thr Tyr Arg Pro Met Thr Glu Leu Met Ile Arg Ala 180 185 190

Ala Ala Asp Asp Val Arg Phe Leu Leu Tyr Leu Tyr His Lys Met Met 195 200 205

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Arg Ile Leu Tyr Ser Lys Thr Ala Thr Glu Val Asp Lys Arg Ala Met 100 105 110

Gln Leu Ile Lys Val Leu Asp Thr Lys Arg Asp Glu Ser Gly Ile Ala 115 120 125

Phe Val Gly Leu Asp Ile Glu Trp Arg Pro Ser Phe Arg Lys Gly Val 130 135 140

Leu Pro Gly Lys Val Ala Thr Val Gln Ile Cys Val Asp Ser Asn Tyr 145 150 155 160

Cys Asp Val Met His Ile Phe His Ser Gly Ile Pro Gln Ser Leu Gln
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His Leu Ile Glu Asp Ser Thr Leu Val Lys Val Gly Ile Gly Ile Asp 180 185 190

Gly Asp Ser Val Lys Leu Phe His Asp Tyr Gly Val Ser Ile Lys Asp 195 200 205

Val Glu Asp Leu Ser Asp Leu Ala Asn Gln Lys Ile Gly Gly Asp Lys 210 225 220

Lys Trp Gly Leu Ala Ser Leu Thr Glu Thr Leu Val Cys Lys Glu Leu 225 230 235 240

Leu Lys Pro Asn Arg Ile Arg Leu Gly Asn Trp Glu Phe Tyr Pro Leu 245 250 255

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